

On a New Snapping Shrimp, *Athanas kominatoensis*

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Five males of a shrimp were secured in April, 1941 by the writer on rocky shore of Kominato, Prov. Awa (Bôsyû). They were found referable to the genus *Athanas*, but representing a new species which will be described in the present paper.

The author is under obligation to Professor ARATA TERAÔ for his kind supervision during the course of this study.

Athanas kominatoensis sp. nov.

Shell smooth. Rostrum lanceolate, somewhat descending, about one-fifth the length of carapace, slightly surpassing second segment of antennular peduncle, dorsally carinated with a low ridge extending backwards almost to middle of carapace, toothless on both upper and lower borders

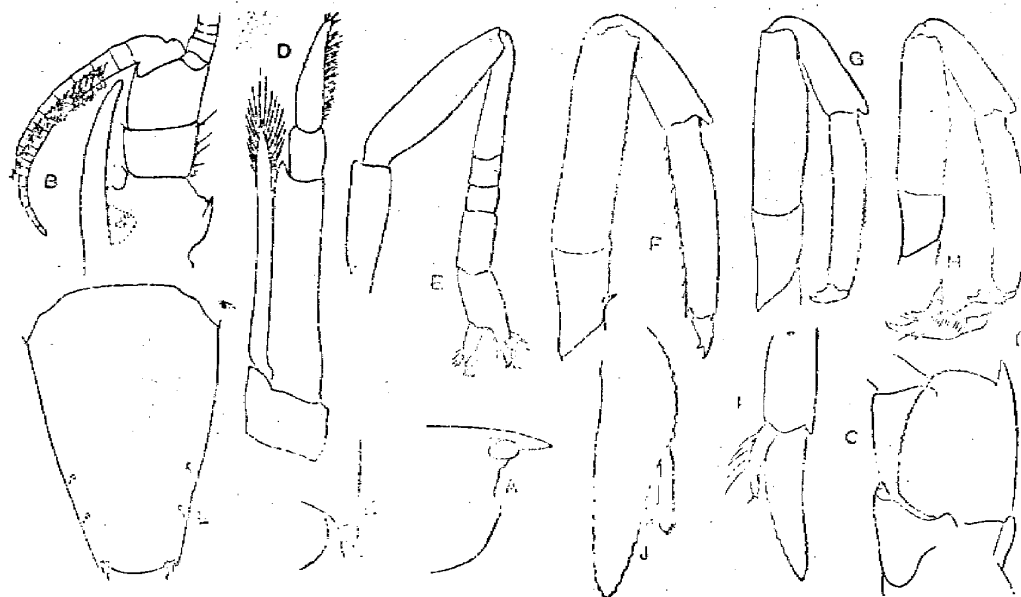


Fig. 1. *Athanas kominatoensis* sp. nov., ♂. A, frontal region (profile) of carapace, $\times 7$; B, antennule without inner ramus, \times ca. 23; C, antennal scale and carapocerite, \times ca. 23; D, third maxilliped, $\times 5$; E, second pereopod, \times ca. 16; F, third pereopod, \times ca. 16; G, fourth pereopod, \times ca. 16; H, fifth one, \times ca. 16; I, first abdominal appendage, \times ca. 23; J, endopodite of second pleonic appendage, \times ca. 38; K, postero-lateral region of outer uropodal appendage, \times ca. 33; L, upper aspect of telson, \times ca. 23.

(Fig. 2, A). Both supra- and extra-corneal spines absent, but infra-corneal one well developed (Fig. 1, A and Fig. 2, A). Abdomen and telson dorsally rounded. Telson slightly shorter than uropods, subrectangular in upper aspect, gradually decreasing its width posteriorly by about half, nearly 3.5 times as long as wide measured at postero-lateral angles; dorso-lateral margins armed with two pairs of setae, proximal pair at about two-thirds and the other one at one-fifth; posterior margin convex, armed with two pairs of outer smaller and inner larger setae close to postero-lateral angle (Fig. 2, L). Antennular peduncle three-segmented; basal segment as long as wide, stylocerite remarkably large, nearly reaching anterior margin of last segment; intermediate segment the shortest, about two-thirds as long as wide; last one somewhat longer than intermediate one, provided with inner thinner and outer thicker rami, outer ramus proximally uniramous comprising six joints, but distally bifid with inner shorter (5-segmented) and outer longer (12-segmented) branches, the latter being about half as long as inner flagellum (Fig. 1, B). Antennal scale broad, outer margin ends in a stout spine projecting far beyond distal margin of lamella; carpopocerite falls short of distal margin of lamella of scaphocerite, about twice as long as wide (Fig. 1, C). Third maxilliped pediform, provided with exopodite, nearly reaching tip of scaphocerite, last segment armed with four bristles at apex and fringed with rather thickly set hairs along inner margin; penult one short, about half times as long as last one; antepenult one depressed, about twice as long as last one, a little less than five times as long as wide, distal outer margin protruded (Fig. 1, D). First pereopod stout, extends beyond antennal scale nearly by its entire chela and half carpus, proportions against movable finger: palm and merus 1, carpus 0.8, ischium 0.3, basis 0.2; both fingers with acute inturned tips, both cutting edges armed with irregular teeth, which are somewhat smaller in movable finger than in fixed one; palm more or less depressed, subrectangular in outline, about 1.4 times as long as wide; carpus short, gradually enlarged distally, as long as wide measured along terminal margin, but ca. 2.5 times as long as wide measured near proximal articulation; merus rather slender, about twice as long as wide; ischium very short, somewhat longer than wide measured along distal margin, provided with a stout spine at middle of inner margin (Fig. 2, B). Second pereopod very slender, hardly reaches to tip of scaphocerite, ratios against movable finger: palm 1, carpus 4.4, merus 3.5, ischium 2.5; fingers with nearly straight prehensile edges and inturned tips; carpus four-segmented, proximal joint the longest, intermediate two joints sub-equal in length, about one-fourth as long as proximal one; last segment twice as long as intermediate one (Fig. 1, B). Third leg stout, about 1.1 times as long as carapace,

ratios to dactylus: propodus 4.6, carpus 3.0, merus 5.5, ischium 2.1; dactylus biunguiculate; propodus about five times as long as wide, posterior margin armed with 11–13 equidistant setae; meropodite toothless, four times as long as wide; ischium provided with a seta on posterior margin near proximal articulation (Fig. 1, *F*). The fourth limb closely resembles third one in general aspect, but slightly shorter than the latter and no seta on ischiopodite (Fig. 1, *G*). Fifth one a little shorter than fourth one, distal outer margin fringed with rather thickly set setae (Fig. 1, *H*). First pleonic appendage with simply leaf-shaped smaller endopodite and larger exopodite (Fig. 1, *I*). Second abdominal appendage carries on endopodite appendix interna and appendix masculina which is shorter than the other appendix and provided with rather short setae at apex (Fig. 1, *J*).

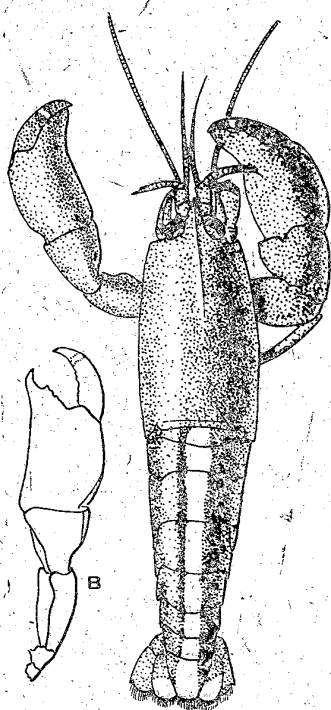


Fig. 2. *Athanas kominatoensis* sp. nov. ♂. A, dorsal view, $\times 5$; B, first pereopod (right), $\times 5$.

Colour in life: Body uniformly dark violet blue, but abdomen with a broad band of light colour along dorsal median line. Inner uropodal appendage tipped with white pattern and movable finger with a band of white colour near its tip (Fig. 1, *A* and *B*).

Holotype: Male, 12.5 mm in body-length without rostrum.

Paratopotype: Four males, 9.5–13.0 mm long.

Type locality: Kominato, Tiba Prefecture.

Dimensions (in mm) of bodily parts of type specimen:—Carapace, 4.3; first pereopod, 7.3; second pereopod 4.2; third pereopod, 4.4; fourth one, 3.8; fifth one 3.6.

Of five specimens at my disposal, four have the first thoracic legs subequal, but one has the left much smaller than the right of the same pair.

The present species bears very close resemblance to *Athanas nitescens* LEACH,^{1,5)} but it is easily distinguished from the latter by having the following characters, viz., (1) both supra- and extra-corneal spines are absent; (2) dactyli of the last three pairs of legs biunguiculate. Also, the present species is easily discriminated from all Japanese species hitherto known, namely, *A. parvus*^{3,4)} DE MAN, *A. japonicus*²⁾ KUBO, *A. oshimai*⁶⁾ YOKOYA, and *A. lamellifer*³⁾ KUBO as shown in the following table:—

- 1) BELL, T., 1853: A history of the British stalk-eyed Crustacea. London.
- 2) KUBO, I., 1936: A description of a new Alpheoid shrimp from Japan. Jour. Imp. Fish. Inst., 31 (2).
- 3) —, 1940: Notes on the Japanese shrimps of the genus *Athanas* with a description of one new species. Annot. Zool. Japon, 19(2).
- 4) DE MAN, J. G., 1911: The Decapoda of the Siboga expedition, Part 2, Alpheidae. Siboga-Expeditie, 39a.
- 5) PESTA, O., 1918: Die Decapoden Fauna der Adria. Leipzig und Wien.
- 6) YOKOYA, Y., 1936: Some rare and new species of Decapod Crustaceans found in the vicinity of the Misaki Marine Biological Station. Jap. Jour. Zool., 7(1).

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